

CLAIMS:

- 1 1. A device for visually inspecting optical component comprising:
2 a borescope, said borescope having a borescope insertion tube and an optical lens
3 for viewing a target; and
4 borescope insertion tube adapter for adapting the borescope insertion tube to an
5 optical component to be inspected.
- 1 2. The device recited in claim 1 above, wherein the borescope insertion tube adapter
2 further comprises:
3 an adapter body, said adapter body being compatible for mating with the optical
4 component to be inspected.
- 1 3. The device recited in claim 2 above, wherein the borescope insertion tube adapter
2 secures the borescope insertion tube at a predetermined position within the adapter body.
- 1 4. The device recited in claim 2 above, wherein the predetermined position within
2 the adapter body is within an effective focal distance for the borescope.
- 1 5. The device recited in claim 2 above, wherein the borescope insertion tube adapter
2 further comprises:
3 a protective sleeve disposed between said borescope insertion tube and said
4 adapter body.
- 1 6. The device recited in claim 5 above, wherein the protective sleeve further
2 comprises:
3 a lock of securing the protective sleeve to the borescope insertion tube.

1 7. The device recited in claim 2 above, wherein the adapter body is one of an SC,
2 ST, FC, E2000, LC, LX, MU, MT components type.

1 8. The device recited in claim 2 above, wherein the adapter body cooperates with a
2 shutter on the optical component to be inspected.

1 9. The device recited in claim 2 above, wherein the adapter body cooperates
2 automatically actuating a shutter on the optical component to be inspected simultaneously
3 during insertion to said optical component to be inspected.

1 10. The device recited in claim 2 above, wherein the borescope further comprises:
2 a video camera for capturing images of a target on the optical component to be
3 inspected.

1 11. The device recited in claim 6 above, wherein the borescope further comprises:
2 a video camera for capturing images of a target on the optical component to be
3 inspected.

1 12. The device recited in claim 2 above, wherein the borescope further comprises:
2 a light emitter for illuminating a target on the optical component to be inspected.

1 13. The device recited in claim 11 above, wherein the borescope further comprises:
2 a monitor for displaying images of the target on the optical component to be
3 inspected.

1 14. The device recited in claim 2 above, wherein the adapter body is configured such
2 that said borescope insertion tube adapter is maneuverable while mated with the optical
3 component to be inspected, whereby the position of the optical lens is adjustable.

1 15. The device recited in claim 2 above, wherein the optical component to be
2 inspected is one of a MU, MT, LC and LX type configured on a high density optical port.

1 16. A method for implementing a borescope for visually inspecting optical
2 component, said borescope having a borescope insertion tube coupled to an adapter body
3 and an optical lens received therein, said optical lens for viewing a target portion on an
4 optical component comprising:

5 engaging the adapter body to the optical component with the target portion to be
6 inspected; and

7 visualizing the target portion of said optical component through said borescope.

1 17. The method recited in claim 16 above, wherein engaging the borescope insertion
2 tube adapter to the optical component further comprises coupling the borescope insertion
3 tube adapter to the optical component.

1 18. The method recited in claim 17 above, wherein prior to inserting the borescope
2 insertion tube adapter into the optical component the method further comprises:

3 securing the adapter body to the borescope insertion tube at a predetermined
4 position within the adapter body, and

5 securing the borescope insertion tube at a predetermined position within the
6 adapter body.

1 19. The method recited in claim 17 above, wherein the predetermined position within
2 the adapter body is within an effective focal distance for the borescope.

1 20. The method recited in claim 17 above further comprises:

2 disposing a protective sleeve between said borescope insertion tube and said adapter
3 body.

1 21. The method recited in claim 20 above further comprises:
2 locking the protective sleeve to the borescope insertion tube.

1 22. The method recited in claim 17 above, wherein the adapter body is one of an SC,
2 ST, FC, E2000, LC, LX, MU, MT components type.

1 23. The method recited in claim 17 above, wherein coupling the borescope insertion
2 tube adapter to the optical component further comprises:
3 operating a shutter on the optical component to be inspected.

1 24. The method recited in claim 23 above, wherein operating a shutter on the optical
2 component to be inspected further comprises:
3 actuating a shutter on the optical component to be inspected simultaneously
4 during insertion to said optical component to be inspected.

1 25. The method recited in claim 17 above further comprises:
2 capturing images the target portion of said optical component to be inspected.

1 26. The method recited in claim 21 above, wherein the borescope further comprises:
2 a video camera for capturing images of a target on the optical component to be
3 inspected.

1 27. The device recited in claim 17 above further comprises:
2 illuminating the target portion of said optical component to be inspected.

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- 1 28. The method recited in claim 26 above further comprises:
2 viewing an image images of the target portion of the optical component to be
3 inspected.
- 1 29. The method recited in claim 17 further comprises:
2 maneuvering the adapter body while engaged with the optical component to be
3 inspected.
- 1 30. The method recited in claim 17 above, wherein the optical component to be
2 inspected is one of a MU, MT, LC and LX type configured on a high density optical port.